DOCUMENT RESUME

ED 169 920 IR 007 206

AUTHOR Middleton, Marino A.
TITLE Evaluation of the Satellite Tele-Education Project (S.T.E.P.) in British Columbia.
INSTITUTION British Columbia Dept. of Education, Victoria.
PUB DATE Feb 78
NOTE 74p.; Not available in hard copy due to marginal legibility of original document

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Communication Satellites; Evaluation Criteria; *Formative Evaluation; Interviews; Questionnaires; *Telecommunication
IDENTIFIERS *Distance Education

ABSTRACT

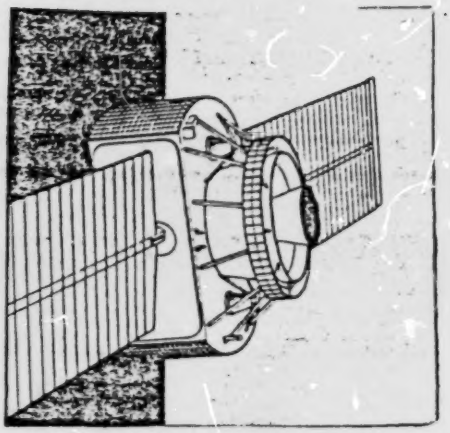
This report of a formative evaluation of S.T.E.P. provides a description of the data gathering instruments for this multi-discipline/multi-audience project, an explanation of the multi-attribute utility measurement format, and a discussion of the implementation procedures used. Data were collected by questionnaires, interviews, and anecodotal notes. Examples of these questionnaires are given in appendix A, while comments and recommendations, objectives, and results of the utility assessment of recommendations are contained in appendices B through E. (RAO)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED169920

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY



EVALUATION OF THE SATELLITE TELE-EDUCATION PROJECT (S.T.E.P.)

IN

BRITISH COLUMBIA

FEBRUARY 1978

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Marino A. Middleton

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM"

IR007206

M. A. MIDDLETON
Program Services
Ministry of Education
Government of British Columbia

ACKNOWLEDGMENT

The author wishes to acknowledge the assistance provided by the Distance Education Planning Group, headed by Pat Carney in the planning and implementation of this study. In addition the assistance of Dr. Murray Richmond of Athabasca University was greatly appreciated.

Special thanks are extended to the on-site animators and staff for encouraging program participants to fill out questionnaires and write out comments.

Finally, I wish to thank Moya Cooper, my research assistant for her excellent efforts in the collection and analysis of the data. Her assistance in the preparation of this report was greatly appreciated.

Marinc Middleton

ABSTRACT

This report presents a decision-theoretic, formative evaluation of the Satellite Tele-Education Project (S.T.E.P.) undertaken by the Ministry of Education of the Government of British Columbia. The report presents technical information gathered on a variety of different types of programs. Comments, questionnaires and anecdotal data were solicited from a variety of participants and locations. The responses were analyzed and recommendations generated. The utility of each of these recommendations to achieve different objectives was assessed. In addition, the relative utilities of the recommendations were examined. Suggestions for implimenting some of the recommendations in order to improve future programs concerned with distance education via satellite are offered.

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENT	i
ABSTRACT	ii
INTRODUCTION	
METHOD	3
Design	3
Questionnaires	7
Sampling	7
Analysis	7
RESULTS	8
Form A	8
Form B	9
Form 2	10
Form 3	11
Form 4	11
Form 5	13
Comments	14
Recommendations	14
Objectives	14
Results of Utility Assessment of Recommendations	14
DISCUSSION	16
APPENDIX A Questionnaires	19
APPENDIX B Comments	41
APPENDIX C Recommendations	56
APPENDIX D Objectives	60
APPENDIX E Results of Utility Assessment of Recommendations	62
REFERENCES	67

INTRODUCTION

The Communications Technology Satellite (CTS) named after the Greek God "Hermes" was launched on January 17th, 1976. The satellites total weight is approximately 1492 pounds and the transmitting tube delivers 200 watts of power which operates in the 11.8 to 14.3 GHz frequency range.

This satellite has been used by various Canadian and U.S. organizations and institutions to carry out a variety of experiments. Among the projects conducted in Canada were a series of educational experiments. This report presents the results of an evaluation of one of these experiments.

On October 1, 1977 the Education Minister of British Columbia, Dr. Pat McGeer announced that studio audiences at four community colleges in B.C. and loggers at the head of Pitt Lake would be linked to lectures in Vancouver.

The experiment was an ambitious one and for several reasons:

1. The technology provided for interaction between lecturer and viewer separated by great distances.
2. The technology allowed viewers at different sites to communicate with each other.
3. With the use of cable system tie in at the community level, persons watching in their homes could participate by telehone.
4. Various educational agencies, colleges, universities, etc. were co-ordinated by a centralized Distance Education agency to produce a variety of programs for general and specific audiences.

The Satellite Tele Education Program (S.T.E.P.) began broadcasting October 25, from the studios of the Provincial Educational Media Centre in Burnaby to Chilliwack, Campbell River, Kelowna, Dawson Creek and an isolated logging camp at Pitt Lake. When the broadcasting began the use of three community cable systems, a radio-telephone system and use of telephone systems also started in conjunction with the satellite. The educational agencies involved in the programming were:

1. The University of British Columbia
2. Simon Fraser University
3. The University of Victoria
4. The British Columbia Institute of Technology
5. Fraser Valley College
6. The National Filmboard
7. The Greater Vancouver Library Federation

8. B. C. Forest Service
9. B. C. Forest Products
10. Vancouver Community College
11. Vancouver General Hospital

The range of programming included in the broadcasts were family law, social services, training in the forest industry, community interest, psychology, transportation, library science - on-line data research, drama, culture, medicine, and political science.

The purpose of this report is to present a summary of responses from a variety of people who participated in the S.T.E.P. experiment, in order that recommendations maybe generated that would improve various aspects of the distance education experiment.

METHOD

DESIGN

The approach here is an evaluation model which facilitates informed decision-making. The majority of programs, studies or projects are evaluated because a decision-maker wants help in figuring out what to do and what choices to make in order to maximize outcomes.

The question becomes one of deciding whose outcomes should be maximized. Occasionally, they are the outcomes for the decision-maker as they are understood by those who serve and advise him. More often, some combination of the values of many different groups with interests in the decisions should be maximized.

An evaluation plan must consist of a technology for extracting, reconciling, explicating and aggregating the inconsistent values of various groups in order that social decision making can be undertaken.

The evaluation plan that was proposed would assess program value, continuously taking into account the values of those served by the program.

Data was gathered that could be used as information to obtain a set of simple answers in order to make informed decisions. Each decision situation has a multitude of value dimensions impinging on it. The problem was to determine the dimensions that were relevant and how relevant each is. Other questions that needed to be answered were: Who determines the relevancy? How are the judgments made or used? How is the location of each possible alternative on each dimension of value measured, judged or found? What transformations or aggregation of input information is utilized to translate this input into outcome evaluation?

In view of the experimental nature of the project and the need for information as a basis for future policy decisions the major focus of the evaluation was of a formative nature.

In order to accomplish this formative evaluation a great deal of fact gathering was indispensable. Fact gathering by itself suffers from two deficiencies as an evaluation method:

1. Too many facts are almost as difficult to use for making decisions as too few.
2. Values almost inevitably escape the fact gathering number dredge. This is probably so because they reside in the decision-makers head

(or, more often, in the collective and disagreeing heads of the various organizations that have a say in the decision).

In this design, fact gathering was used for two main purposes:

1. To describe the project.
2. To generate recommendations to improve the project.

In the majority of decisions there are a multiplicity of value dimensions that present a multiplicity of problems. Who determines what dimensions are relevant, and how relevant each is? How is that set of judgments made or used? How is the location of each possible outcome of each act being considered on each relevant dimension of value measured or judged or discovered? What combination of judgmental transformation and arithmetical aggregation is used to translate all this input information into outcome evaluations?

Several versions of an explicit technology exist to answer some of these questions. Its name is multi-attribute utility measurement and expositions of various versions of it have been presented by Raiffa (1968), Keeney (1972), Edwards (1971) and others.

The version suggested here is adapted from Edwards (1971) and is oriented toward easy communication and use in environments in which time is short and decision-makers are numerous and busy. Further, it is a method that is psychologically meaningful to decision-makers, who are required to give judgments that are intuitively reasonable.

The essence of multi-attribute utility measurements in any of its versions is that each outcome to be evaluated is located on each dimension of value by a procedure consisting of experimentation, naturalistic observation, judgment or some combination of these. A simple linear weighted combination rule will suffice to aggregate these dimensions and outcomes. The weights are numbers describing the importance of each dimension of value relative to the others. The numbers are judgmentally obtained from the participants of the project.

The implementation of the technology consisted of ten steps:

Step 1: Identification of the persons or organizations whose utilities are to be maximized. People who can speak for them must be identified and induced to cooperate.

Step 2: Identify the issue or issues (i.e. decisions) to which the utilities needed are relevant. The same recommendations may have many different values depending upon their nature and purpose.

Step 3: Identify the entities to be evaluated. Often it is sufficient to treat an action itself as an outcome. This amounts to treating

the action as having an inevitable outcome, that is, of assuming that uncertainty about outcomes is not involved in the evaluation of that action. These 'entities' are the recommendations generated from the data analysis of questionnaires, interviews, etc.

Step 4: Identify the relevant dimensions of value. The first three steps are more or less philosophical. The first answered the question - Whose utility? The second answered the question - Utility for what purpose? The third answered the question - Utility of what entities?
Step 4 asks us to discover what dimensions of value are important to the evaluation of the entities we are interested in.
It is important not to be too expansive at this stage. The number of relevant dimensions of value should be kept down. Eight dimensions are plenty and fifteen are too many.

Step 5: Rank the dimensions in order of importance. The ranking job can be performed by representatives of conflicting values acting separately, or by those representatives acting as a group.

Step 6: Rate dimensions in importance preserving ratios.

Step 7: Sum the importance weights, divide each by the sum and multiply by 100. This converts the importance weights into numbers that are similar to probabilities.

Step 8. Measure the location of each entity or recommendation that was generated from Step 3 on each dimension. The word measure is used loosely. There are three classes of dimensions, purely subjective, partly subjective and purely objective. The purely subjective dimensions are perhaps the easiest. Simply get an appropriate expert to estimate the position of that entity or recommendation on that dimension on a 0 to 100 or 0 to 10 scale, where 0 is defined as the minimum plausible value on that dimension and 100 is defined as the maximum plausible value. This is probably the simplest way to proceed.

Step 9: Calculation of utilities for entities. The equation is $V_i = \sum W_j V_{ij}$ remembering that $\sum_j W_j = 100$, V_i is the aggregated utility for the ith entity on the jth dimension. Thus W_j is the output of Step 7 and U_{ij} is the output of Step 8.

Step 10: Decide. If a single act is to be chosen then the subset for which $_iV_i$ is maximum is best.

Independence Properties

The aggregation rule assumed value independence. Roughly, that means that the extent of your preference for location a_2 over location a_1 on dimension A is unaffected by the position of the entity being evaluated on dimensions B, C, D. Fortunately, in the presence of even modest amounts of measurement error, quite substantial amounts of deviation from value independence will make little difference to the ultimate number V_i, and even less to the rank ordering of the V_i values. (Dawes and Corrigan (1974).)

In order that entities or recommendations can be generated for Step 3, a variety of data collection instruments was utilized. The majority of these can be found in Evaluation Education, C.T.S. Number 1 evaluation model instruments 1976-77.

The data was collected by questionnaires, interviewing and anecdotal notes. A variety of statistical analysis was undertaken on the data to generate the entities or recommendations required in Step 3. In addition recommendations solicited by respondents by questionnaires was utilized.

QUESTIONNAIRES

Six questionnaires were utilized to collect data related to demographic information on the respondents, aspects of the studio environment, amount of interaction, organization, quality of communication, satisfaction of technical aspects, interest of content and transmission conditions. In addition, the questionnaires allowed for comments and recommendations. Copies of each of these questionnaires and the results may be found in Appendix A.

SAMPLING

Questionnaires were distributed to studio locations at British Columbia Institute of Technology, Burnaby, Okanagan College, Kelowna, Fraser Valley College, Chilliwack, North Island College, Campbell River, Northern Lights College, Dawson Creek, and Pitt Lake. Participants at these sites were encouraged to fill out these questionnaires. Initially one type of program from each of the following areas was chosen to be surveyed. These areas were Forestry, Medical, Legal, Perspectives, Psychology, Satellite College, Computer Data research and one general program. However as a consequence of low attendance for some of these programs, animators at sites were requested to distribute questionnaires according to audience participation. It is probable that the responses were respresentative of the majority of programs. Although, had other programs in a cluster been surveyed one could expect some variations in responses. Representativeness was further insured by the selection of programs over a number of different days.

ANALYSIS

A breakdown by program type, e.g. for Medical, etc. was not carried out because these questionnaires related mainly to the technical aspects of the evaluation. In addition, the evaluations by the consortium members regarding their own program should adequately cover this aspect.

Questionnaires were frequency tabulated. In addition, crosstabulations were carried out to determine the differences in responses by location site. Finally, regression analysis was undertaken to provide information as to how some of the respondents were making their judgments regarding the communication aspects of the project.

RESULTS

This section presents the results of the analysis.

FORM A

Demographic Characteristics of the Respondents

This form is concerned with the physical layout of the onsight location. There were 71 respondents to this form. The majority of the respondents were 20-25 years of age (43%). The second largest group consisted of 26-40 years of age which represented 35% of the respondents. The remaining 22% were over 40 years of age. The educational background was approximately divided by 50% secondary and 50% college or university. Of these respondents 67% were Male and 33% were Female. 70% of these respondents lived in a city or town, 20% lived in the country and 7% lived on farms.

Studio Environment

The actual layout of the studio as estimated by the respondents showed a range from excellent (40%), good (34%) to poor (22%). Approximately 90% of these respondents thought there were enough T.V. monitors in their studio. This same percentage thought the arrangement of these monitors was satisfactory for viewing the program. The picture quality of the monitors was excellent (67%) and the overall adequacy of the T.V. picture for achieving the Teaching Learning objectives was considered to be good to adequate (80%). 92% of the respondents were of the opinion that there were enough speakers to hear the programs. Whereas only 68% thought the sound quality to be in the range of good to excellent. 29% thought the sound quality to be adequate. Approximately half of the respondents were able to hear everything clearly on the system. 76% of the people believed the sound system to be adequate to achieve the objective of the programs.

The majority (86%) thought there were enough microphones for participation. Approximately one-half of the groups in the sessions surveyed used the microphone. About 82% were of the opinion that the procedures and techniques for equipment use were clearly explained. Of the people who used the equipment

90% found it easy to use and 82% had no problems using the equipment. Echos were a very minor problem, as only 18% experienced any difficulties with them. 75% of the respondents believed the total communication system to be adequate for achieving the objective of the programs. 88% expressed the desire to use this type of communication system for similar programs.

FORM B

Communication

This form deals with the communications aspect as a two-way experience. There were 61 respondents to this form. Of the sessions surveyed the majority of the respondents indicated that either 1 or 4 other locations were contacted by members of their group. However, there could have been a misunderstanding in the interpretation of this question because four sites communicated with the British Columbia Institute of Technology (BCIT). The responses indicate that only a few of the people present at a location talked with other locations. In the majority of cases (64%) the session did not start prior to satellite communications. For the 36% of the respondents in which the session started earlier the majority of the time was spent explaining objectives, learning to operate the equipment and preparation of the content. 78% of the respondents stated there was a moderator or group leader on site. 26% believed that the program most resembled talking on the telephone, 23% listening to an 'open line' radio show, 21% having a conversation with friends. 54% agreed it was easy to identify who was talking on the system and 16% disagreed. Two-thirds of the respondents believed participation was encouraged by the group. The same percentage did not think that the equipment was a distraction and 64% did not feel technical adjustment took a long time.

The respondents were equally split on whether or not the sessions followed a predetermined plan. 65% felt comfortable with the system while 20% felt self-conscious. Approximately three-quarters of the people found the telecommunication system easy to use. It was found that the respondents differed in their opinion regarding aspects of closeness in geographical distance, 57% agreed that the sites seemed close to each other while 33% did not. 59% of all the respondents agreed that Satellite teaching was as understandable as "face-to-face" presentation.

During the course of the sessions 44% felt that questions and comments altered the program and 37% disagreed. 67% of the respondents felt the sessions were not long enough. The respondents were also divided in their opinion on

whether or not they got a good idea of how participants were reacting at other sites 39% vs. 47%. Only 15% of the respondents thought that a disporportionate amount of time was spent on administration and operational procedures. About one-half of the respondents got a real feeling of personal contact. 15% thought content of the sessions was presented in a confusing manner whereas 64% did not. 64% also felt that content of the sessions was interesting.

The majority (84%) felt that the two-way capability was essential for their sessions. 72% felt that the video image was essential. 48% felt that it was difficult to talk to people in one's own group during the satellite session while 37% felt that it was not and about 50% had discussion occur that was not transmitted to other sites during the session. 72% of the respondents strongly disagreed that during the sessions satellite contact had not been lost while 18% felt that it had been lost. Most two-way communication which occurred on the system during these sessions appeared not to be carefully planned (54%).

The majority (82%) of the person(s) presenting the major portion of the content for these sessions appeared to the audience to be comfortable using this type of system. Also 50% of the audience found that the spontaneity found in more conventional classes was not inhibited using this satellite system. The majority (78%) found it exciting to be part of this experiment. The respondents (88%) felt that the general level and quality of communication in these sessions was highly acceptable to acceptable.

FORM 2

Technicians Log

This form deals with the weather and transmission conditions at each site during the broadcasts of the programs. There were 15 respondents to this form. 75% of the satellite project was broadcast with cloudy and wet conditions. The video transmission and reception during the sessions was adequate and the audio transmission and reception was also adequate. The overall operation of the system during the session was adequate. Dawson Creek and Pitt Lake on several occasions had equipment failures and BCIT had a breakdown of the DOC transmitter on December 13, 1977.

FORM 3

Opinions and Attitudes

The objective o- this questionnaire was to record the opinions and attitudes towards the satellite sessions. There were 68 respondents to this form. The pverall opinion of the relationship between one site and another site during the sessions revealed that they were unequal (74%), competitive (73%), and unfriendly (62%). The actual content of the program produced negative feelings among the majority (66%) although 64% of the respondents felt that the programs were aimed at specific audiences. The overall opinion of the satellite project was good (60%). 65% of the respondents felt that the objectives of the session were clear and about 30% felt that the objectives were not achieved at all. 42% felt that conversation was difficult under these conditions.

FORM 4

Demographic Characteristics of the Persons involved in Project

This form was completed by persons involved in the planning, implementation, operation or evaluation of the Satellite Project. There were only 64 persons who responded to this questionnaire. The majority of these respondents (64%) were under 40 years of age. 69% were males and 31% were females. Educational background showed that 88% had College or University education. They were engaged, for the most part in Teaching (20%), Administration (28%), and Technical (15%) jobs.

Training and Participation in the STEP Project

42% of the persons participating in the project stated they were participating for personal and/or professional interest. The other reasons ranged from requiring to participate by supervisors to substitution for another person, each of which was below 13%. The majority (84%) of these people had used audio visual equipment before becoming involved in this project. About one-half had worked with telecommunications equipment prior to the project. Two-thirds of the respondents were of the opinion that they had received enough training for the project, one-third did not.

Support for Project

80% of the persons involved in the project received support from their institutions Audio-Visual Department and 20% did not. 89% received support from their colleagues while 11% did not. Interestingly, only 45% received support from departmental Chairman, Dean and Vice-Presidents of their institutions and 55% did not. 47% got help from the CTS evaluation team and 21% received help from their University Committees.

Evaluation Criterion

The majority of the respondents, about 34 , believed that the most important criterion for measuring the success of the project was the relevance of the project to the institutes objective and/or mandate. The next largest group (25%) believed that success should be measured in terms of innovation in Teaching and Learning. The next largest group (20%) believed it should be based on the satisfaction of the student. Only 2% believed it should be based on the satisfaction of the experimenters. 3% on possibility of continuing the project.

Work Load and Associated Factors

53% responded that they had 1-5 departmental colleagues associated with the project. If we assume an average of 3 colleagues per respondee, this group would have approximately 100 people involved. 19% had anywhere from 16-20 colleagues involved. This latter group would represent approximately 342 people if we take an average of 18 colleagues per respondents. 3 people or approximately 5% had more than 20 people involved in the project. This group would represent a minimum of 60 participants. Including all respondent and individual associates with this project approximately 530 individuals participated on the basis of these responses. However, since the respondent rate for this form was only in the order of 50% it is quite probable that approximately 1,000 individual participated in this project. However, there may have been some possibility of double counting in obtaining this estimate.

With regard to the amount of time spent on the project about 58% of the respondents spent one-quarter of their time or less on this work, between one-quarter and one-half 13%, and 13% between one-half and three-quarters, and finally 11% between three-quarters and all of their work time. The majority (77%) of those involved in the project conducted their regular duties along with the STEP project and about 13% obtained some help. 36% estimated that their involvment in the project increased their work load by 25%, 11% were increased by 50% and 5% were increased by 75%. About three-quarters of the persons involved in this project were of the opinion that it was mostly a team effort. Approximately 95% were of the opinion that the project met or addressed a real need while only 5% did not. 64% believed that the project will be able to continue by using other resources and 36% did not.

Satisfaction

64% of the respondents were very satisfied with their part in the project. Only 10% were dissatisfied.

FORM 5

Program Location Site - British Columbia Institute of Technology

Demographic Characteristics of the Respondents

This form was made up especially for the live studio and almost every program was evaluated. There were 50 respondents to this form. The majority of the responden at this site (52%) were 31-50 years of age and the second largest group were 20-30 (46%). The educational background was approximately divided evenly between people who had secondary education and University or College education. Of these respondents 52% were female and 48% were male. 90% lived in a city or town while the remaining percentage lived in the country.

Studio Environment

The actual layout of the studio showed 46% thought it was excellent, 36% good, and 12% poor. 70% of the audience felt there were enough TV monitors for the size of the group. The arrangement of the TV monitors was excellent (54%), good (22%), and poor (24%). The picture quality of the monitors was excellent (86%) and the adequacy of the picture for the teaching-learning objectives was also excellent (70%).

There were enough speakers for the group (92%) but the quality of the sound was only rated good by 68%. The overall adequacy of the sound system for achieving the teaching-learning objectives rated 58% adequate, 30% good, and 12% inadequate. The overall adequacy of the communications system for achieving the teaching-learning objectives was 70% adequate, 16% good, and 8% poor. 78% of the respondents felt that this type ofcommunications system could be used regularly for taking similar courses.

The situations most resembling the impressions of the sessions at this site showed 38% thought it was like doing a 'live' TV broadcast, 22% thought it was like taking part in a seminar, 14% throught it was like listening to an 'open line' radio show.

In spite of geographical distance the studio respondents (80%) felt that the different groups seemed relatively close to each other and 78% could easily tell what other site was talking on the system. This was primarily due to the fact that the user usually stated who was calling and also the panel animator would direct the question time to the different sites by identifying the site before the question was aired.

66% of the respondents felt the content of the programs was interesting and 80% felt that the program followed a predetermined plan. 57% disagreed that the

sessions were too long. According to 46%, most two-way communication which occurred on the system during the session did not appear to be carefully planned while only 36% thought it was carefully planned. The overall opinion of the general level and quality of communication in this project was highly acceptable (82%) and acceptable (12%).

COMMENTS

Comments by respondents to questionnaires are presented in Appendix B.

RECOMMENDATIONS

As a consequence of the analysis of both data and comments, meetings and anecdotal evidence, a list of recommendations were generated. These recommendation were divided into four main categories.

1. Production
2. Program Content
3. Communication
4. Audience

Forty-three recommendations were generated. These recommendations may be found in Appendix C.

OBJECTIVES

As a result of a meeting with the head of the D.E.P.G. objectives for the experiment were formulated, rank ordered and priorized. A summary of these objectives may be found in Appendix D.

RESULTS OF UTILITY ASSESSMENT OF RECOMMENDATIONS

This section presents the results determined by applying Step 8 of the method section. Essentially the utility of a recommendation compared to every other recommendation is assessed. For reasons of simplicity of presentation, a simple linear transformation was applied to the values calculated in Step 8.

In essence this involved taking the highest number generated by Step 8 of the method, equating it to 1,000 and re-valuing the remaining numbers accordingly. These results are presented in Appendix E.

DISCUSSION

Recommendation #9, 'More lead time for program preparation and planning should be given.', shows three different utility values, one extremely high, one in upper-medium range, and one in the upper-lower range. This recommendation can be seen to have extremely high utility with respect to the co-ordinating function of a centralized DE Agency. Apparently this recommendation is considered highly essential to adequately prepare for the planning and preparation of programs. It is interesting to note that for this project lead time appeared to be inadequate. For future programs, adequate lead time to co-ordinate various agencies should be allowed for.

This same recommendation has also relatively high utility with respect to testing the feasibility of various education agencies production and sharing programs for general or specific audiences using a variety of modes. It is important that in future enough lead time is given to allow these agencies to interact with each other, identify their audiences and explore the best ways of presenting information to these audiences. The recommendation also had a low degree of utility with respect to assessing the test community needs. This maybe due to the fact that the decision makers in this project see a needs study connected to lead time as separate from the project.

With respect to recommendations 35, 40, 41; all of which deal with facets of participation or interaction, it can be seen that these activities have a very high utility. These recommendations should be carried out if it is desired to produce programs that allow for interactive communication between students at a distance and a centrally located instructor. These recommendations have only medium utility with respect to testing configurations of DE satellite based systems. In this project the responses indicated that a great deal of interaction took place. The nature of this interaction was mostly between the studio location and one or more sites. Only in specific programs was their a great deal of onsight to onsight interaction. These results would suggest that future programs might consider more controlled interaction among sites rather than through a central studio.

Recommendation #17,'Needs study required to determine program content', had a very high utility which indicates that a Needs Study should be undertaken

to determine program content. This recommendation was rated highly to attain Objective #3 and Objective #11. With regards to this project a Needs Study was not carried out. As a result there was dissatisfaction with the program content produced by some of the educational agencies. It seemed apparent that some of the better programs, in the opinion of the audience, were those in which the audience was identified, e.g. medical program, forestry. In addition, the main education program on how to teach librarians to use computer terminals for library searches was especially successful.

In conducting future Need Studies it seems important to identify specific programs and match these with specific audiences. In addition, the location of the audience should be considered. This is necessary because towns such as Dawson Creek do not have a cable system, therefore limiting the beaming of programs to specific on-site locations thereby restricting the audience.

Recommendations #24 and #25, 'Co-operation from higher administrative levels should be encouraged' and 'Consortium members producing programs should adequately budget for their programs', received high utility ratings but were not carried out to any great degree. The consortium members indicated by their responses that they had obtained very little supportive assistance from the higher administrative levels of their institutions. It is recommended that steps be taken to open lines of communication with the administrative staff of the institutions.

Recommendation #32, 'Animators may wish to inform and prepare themselves more adequately regarding the content of programs' was very useful but again was only carried out to a limited extent in the project. It is recommended that more attention be paid to this aspect. Although there was quite a bit of publicity in the initial stages of the project and recommendation #36 (Increased publicity to encourage public participation is required) was judged to have high utility, some form of continued publicity might be considered, especially toward target audiences.

Recommendation #3 (More time should be allowed for interaction and question periods. Time limits for panelists responses should be set) and recommendation #23 (More visual aides, e.g. slides, graphs, etc., should be utilized during lectures) concerned technical aspects of programming and had high utility but again were not carried out to any great degree. Consideration should be given to carrying out these recommendations more

fully. Recommendations #30 and #33 also deal with technical aspects of programming and these should also be given consideration. Recommendations #1, 6, 12, 13, 21 and 22 all deal with aspects of programming and panelists should be carried out more fully than they were in the series of programs. Recommendations #15, 35, 41 and 43 deal with participation and interaction as well as placement of monitors and again can be carried out to a greater degree than they have been in these programs.

It is important that if on-site locations are going to be used, that physical layout of these locations be adequate. Two-way video may wish to be utilized only in highly technical circumstances.

In view of the fact that the use of the Satellite for teleconferencing would be a cheaper, more efficient and suitable form of teleconferencing, especially for officials separated by great distances, more of this type of activity should be carried out. With respect to this activity Recommendation #16 (Ways should be explored to assure confidentiality on teleconferencing) is crucial. Perhaps the problem of confidentiality in this type of teleconferencing can be overcome with the use of suitable scrambling devices.

The above discussion has outlined a few of the major problems encountered during these programs. It is hoped that some of these recommendations be given attention in order that improvements can be made.

In view of the number of communities in the interior that have cable systems and those that do not, serious considerations should be given to providing educational programs that would service both of thes type of communities. With regard to the content of these educational programs, sharing of pre-packaged programs from a variety of sources e.g. Europe, United States, amy be advisable. In addition, a specific program or course may be created and packaged by the Ministry to be offered on a reciprocal basis.

Of great value would be the use of the SAtellite to link provincial college libraries with data banks in the lower mainland and the United States.

The use of two-way audio could be restricted to highly specialized programs that may require these kinds of facilities e.g. teleconferencing and site to site interactions.

APPENDIX A

QUESTIONNAIRES

QUESTIONNAIRES

INSTRUMENT #1

FORM A

No. of respondents from each site:

BCIT	9
Chilliwack	32
Kelowna	25
Dawson Creek	5

Program evaluated:	No. of respondents per program:
Forestry	20
Medical	8
Legal	9
Perspective	8
University of Victoria	10
Satellite College	16

FORM B

No. of respondents from each site:

BCIT	2
Chilliwack	24
Kelowna	34
Pitt Lake	1

Program evaluated:	No. of respondents per program.
Forestry	11
Medical	12
Legal	7
Perspective	9
University of Victoria	7
Satellite College	9

INSTRUMENT #2

Technicians log - 12

INSTRUMENT #3

No. of respondents from each site:

BCIT	4
Chilliwack	28
Kelowna	31
Pitt Lake	5

Program evaluated:	No. of respondents per program:
Forestry	18
Medical	8
Legal	11
Perspective	5
University of Victoria	15
Satellite College	11

INSTRUMENT #5 (Questionnaire for BCIT only - studio audience)

No. of respondents: 50

Program evaluated:	No. of respondents per program:
Distance Education Sampler	9
Forestry	14
Medical	16
Legal	7
Computer - On-Line Searching	4

COMMUNICATIONS TECHNOLOGY SATELLITE

Educational Experiences Evaluation

Instrument #1

(To be completed by participants)

Part A

Introduction

The project which you are participating in is one of a series of experiments examining uses of the Communications Technology Satellite for Education.

To help us better understand the potential and limitations of satellites for education, we are asking selected participants in the educational projects for their impressions and opinions about their experiences when using the satellite.

Today we are asking you to answer questions about some technical aspects of the session you just completed. Your answers can help in the design of components for future satellite communications systems. Please answer carefully.

Instructions:

Complete each of the following questions by selecting the most appropriate answer or filling in the information requested.

Don't answer questions which do not apply to today's satellite session.

NOTE: We are asking for your name in order to group this questionnaire with others which you may answer during the satellite sessions. Although the results of your questionnaire will be used, your name will remain confidential.

1. Name: _____

2. Age: Under 20 (18); 21-25 (12); 26-30 (5); 31-35 (15); 36-40 (6); 41-45 (4); 46-50 (1); 51-55 (6); 56-60 (2); 61-65 (1); 66-Over (1).

3. Sex: Female (21) Male (50)

4. Educational background (specify in terms of highest level completed)

   Elementary (6); Secondary (28); College (11);
   University - Bachelors (14); Masters (9); PhD (2), M.D. (1)

5. Where is your home?
   In a city or town (51); In the country, but not on a farm (14);
   In a village (1); In the country on a farm (5).

6. Date of this satellite session.

Day _____ Month _____ Year _____

SCALE TO REPRESENT YOUR OPINION OR REACTION.

7. How would you rate the physical layout of the room used for this session?

Excellent	8	22	25	12	4	Poor

8. Were there enough TV monitors in the room for the size of group watching the session?

Yes	60	5	2	1	2	No

9. Were the TV monitors arranged so that you could satisfactorily see what was happening?

Yes	58	5	5	1	1	No

10. How good was the general quality of the TV picture for this session?

Excellent picture quality	32	16	11	8	4	Poor picture quality

11. Rate the overall adqueacy of the TV picture for achieving the teaching-learning objectives of this session.

Adequate	35	22	10	3	1	Inadequate

12. Were there enough loud speakers for everyone to satisfactorily hear what was being said?

Yes	56	9	4	2	___	No

13. How good was the sound quality?

Excellent sound quality	22	26	16	4	3	Poor sound quality

14. How would you rate the volume of the sound?

Too loud	4	9	56	1	1	Too low

15. Were you always able to clearly hear everything that was said on the system?

Yes, always	23	12	9	13	14	No, not always

16. Rate the overall adequacy of the sound system for achieving the teaching-learning objectives of this session.

Adequate	39	15	12	5	___	Inadequate

17. Were there enough microphones to allow ready participation by any member of your group?

Yes 61 No 7

18. Did you use a microphone during this session?

Yes 34 No 35

19. Have the procedures and techniques for using the equipment associated with this session been clearly explained to you?

Yes 58 No 11

20. Do you find the equipment easy to use?

Yes, easy 52 2 5 1 ___ No, difficult

21. Were there any problems with the equipment in your room during this session?

Yes, Many 6 5 3 5 49 No, none

22. When a member of your group was on the system, could you hear the echo of what was said coming from other locations?

Yes, always 5 7 3 9 44 No, never

23. Taking into account the teaching-learning objectives of this session, rate the overall adequacy of this communications system for achieving them.

Adequate 29 21 12 4 1 Inadequate

24. Would you like to regularly use this type of communications system for taking similar courses?

Yes 59 No 8

25. a. Do you have any suggestions for improving the technical components or quality of this system?

b. Are there any other comments which you would like to make on technical features of this system?

Part B

Introduction

Communication via the CTS can be a two-way experience. It enables an exchange of information and opinions between individuals and groups in widely separated geographical locations. By completing this questionnaire you will help us identify some important educational aspects of satellite communications.

Instructions:

Complete all of the following questions except those which do not apply to today's satellite session.

FOR EACH QUESTION WHICH FOLLOWS, SELECT THE MOST APPROPRIATE ANSWER OR FILL IN THE INFORMATION REQUESTED.

1. How many other locations were contacted by members of your group during this session?

   One (23); Two ( ); Three (2); Four (22); None (9).

2. What proportion of those present at your location talked with persons at other locations during this session?

   All (1); Most (8); A few (39); One person (6); No one (6).

3. Did today's session actually start before the satellite communications began?

   YES, more than 30 minutes earlier. (2)
   YES, but less than 30 minutes earlier. (19)
   NO (37)

4. If your answer to 3 was YES, which of the following activities occupied most of the pre-satellite session?

   Explaining the objectives of the session. (9)
   Getting to know the other members of your group (1)
   Learning how to operate the equipment (7)
   Preparing content for the session (5)
   Reviewing material from a previous session (1)
   Other - specify

   _____

5. Was there a moderator or group leader with your group?

   Yes 46 No 13

6. Which of the sites 'talked' most during the session?

   Your site (10)
   Another site sending picture (video) and audio (21)
   Another site sending audio only (5)
   All sites 'talked' quite often (14)
   Two sites 'talked' actively, the others much less (7)

7. Which of the following situations most resembles your impression of this session?

Watching a TV program	(4)
Attending a lecture	(8)
Talking on the telephone	(16)
Taking part in a seminar	(14)
Listening to an 'open-line' radio show	(4)
Doing a 'live' TV broadcast from a studio	(2)
Having a conversation with friends	(13)
Watching an experiment in communications	(0)

MARK ONE PLACE ON THE SCALE TO INDICATE YOUR DEGREE OF AGREEMENT OR DISAGREEMENT WITH EACH OF THE FOLLOWING STATEMENTS.

8. It is always easy to tell who is talking on the system.

Strongly disagree	2	8	18	16	17	Strongly agree

9. Participation by all members of the group is encouraged.

Strongly disagree	1	9	11	21	19	Strongly agree

10. The telecommunications equipment used is a source of distraction during the sessions.

Strongly disagree	26	14	9	6	5	Strongly agree

11. The technical adjustments required to establish satisfactory satellite communications take a long time.

Strongly disagree	25	14	9	8	2	Strongly agree

12. This session followed a closely predetermined plan.

Strongly disagree	6	18	9	13	11	Strongly agree

13. The system makes one feel self-conscious.

Strongly disagree	30	10	9	11	1	Strongly agree

14. The telecommunications system is easy to use.

Strongly disagree	1	3	10	14	31	Strongly agree

15. There were embarassing silences during this session.

Strongly disagree	39	13	7	1	1	Strongly agree

16. In spite of geographical distance the different groups seemed close to each other during this session.

Strongly disagree						Strongly agree
	8	12	6	14	21	

17. It was more difficult to understand the material presented on the satellite system than if it had been presented 'face-to-face'.

Strongly disagree						Strongly agree
	15	21	8	9	8	

18. The course of the session was altered as a result of participants questions and comments.

Strongly disagree						Strongly agree
	8	11	12	16	11	

19. This session was too long.

Strongly disagree						Strongly agree
	28	13	6	9	4	

20. One does not get a good idea of how participants at other sites are reacting.

Strongly disagree						Strongly agree
	11	18	8	16	8	

21. Administrative and operational procedures occupied a disproportionately large part of this satellite session.

Strongly disagree						Strongly agree
	31	15	5	7	2	

22. One gets a real feeling of personal contact using this telecommunications system.

Strongly disagree						Strongly agree
	7	8	13	17	15	

23. The content of this session was presented in a confusing manner.

Strongly disagree						Strongly agree
	22	17	11	5	4	

24. The two-way capability of the satellite system is essential for this type of teaching-learning session.

Strongly disagree						Strongly agree
	1	3	5	8	43	

25. The video (visual image) was not essential for this satellite session.

Strongly disagree						Strongly agree
	31	13	3	7	3	

26. The 'content' of this session was very interesting.

Strongly disagree						Strongly agree
	3	7	9	23	19	

27. It is difficult to talk to people in one's own group during the satellite sessions.

Strongly disagree						Strongly agree
	14	9	8	15	14	

28. There were times during this session when it seemed as if satellite contact had been lost.

Strongly disagree						Strongly agree
	40	4	6	4	7	

29. Most two-way communication which occurred on the system during this session appeared to be carefully planned.

Strongly disagree						Strongly agree
	21	12	14	7	6	

30. The person(s) presenting the major portion of the 'content' for this session seemed to be uncomfortable using the system.

Strongly disagree						Strongly agree
	32	18	4	5	1	

31. One gets the impression that much of the spontaneity found in more conventional classes is inhibited using this satellite system.

Strongly disagree						Strongly agree
	15	15	13	12	6	

32. I find it exciting to be part of an experiment in the use of new telecommunications technologies for educational purposes.

Strongly disagree						Strongly agree
	4	4	4	12	36	

33. Did discussion occur within your group during the satellite portion of the session which were not transmitted to other sites.

Yes (24) Sometimes (26) Never (11)

34. Rate the frequency with which each of the following types of activities occurred during periods of two-way communication on the system.

Asking for information
Very frequent 4 17 21 12 1 Never

Providing information
Very frequent 11 20 12 10 3 Never

Asking for additional explanation
Very frequent 2 14 17 16 5 Never

Providing additional explanation
Very frequent 6 11 14 17 6 Never

A series of unrelated comments
Very frequent 5 7 9 21 13 Never

Expressions of agreement with opinions of others.
Very frequent 5 18 14 15 1 Never

Discussion
Very frequent 9 19 11 10 4 Never

Arguments
Very frequent 5 9 4 8 27 Never

35. What is your overall opinion of the general level and quality of communication in this session?

Highly acceptable 17 26 11 5 1 Unacceptable

36. Do you have any comments or recommendations for improving this type of session?

COMMUNICATIONS TECHNOLOGY SATELLITE

Evaluation Technical Log

Instrument #2

1. Date of Session: Day _____ Month _____ Year _____

2. Time: From _____ hours to _____ hours

3. Weather During Session:

Clear Skies (3); Cloudy (3);
Intermittent Precipitation (3);
Steady Precipitation (3)

4. If intermittent or steady precipitation occurred, please designate the type or types:

RAIN:

Light (.1 in. or less/hr.)	(1)
Moderate (.11 - .3 in./hr.)	(2)
Heavy (.31 in. or more/hr.)	( )

DRIZZLE OR FREEZING RAIN:

Light (.01 or less/hr.)	( )
Moderate (.01 - .02 in./hr.)	( )
Heavy (.02 in. or more/hr.)	( )

ICE PELLETS OR HAIL:

Light (visible on ground)	( )
Moderate (steady accumulation on ground)	( )
Heavy (rapid accumulation on ground)	( )

SNOW:

Light (visibility 5/8 mi or more)	(1)
Moderate (visibility 1/2 - 3/8 mi)	(2)
Heavy (visibility less than 1/4 mi)	( )

5. Rating of video transmission during session.

Adequate 4 5 ___ ___ ___ Inadequate

6. Rating of video reception during session.

Adequate 8 3 1 ___ ___ Inadequate

7. Rating of audio transmission during session.

Adequate 6 4 ___ ___ ___ Inadequate

8. Rating of audio reception during session.

Adequate 7 5 ___ ___ ___ Inadequate

9. Rating of overall operation of the system during session.

Adequate 6 5 1 ___ ___ Inadequate

10. Were there any equipment malfunctions? (describe)

Yes - 3 No - 9

11. Were there any problems during interaction (question-answer discussion etc.) between students and faculty?

Yes - 1 No - 11

COMMUNICATIONS TECHNOLOGY SATELLITE

CRC Man-Machine Interaction
Educational Experiences Evaluation

Instrument #3

(For Participants)

Instructions:

The objective of this questionnaire is to record your opinions of this satellite session. Use the following adjective scales to record your feelings about today's session. Complete each scale even though some may not seem appropriate.

Please indicate your feelings about this session by placing an X on each scale. Check all scales in order and do not spend too much time on any one answer.

For example:

Active ___ x ___ ___ ___ Passive

Please indicate how you would describe the relationship between your own site and the other sites during this session.

1.	Equal	9	7	13	14	23	Unequal
2.	Competitive	19	18	14	7	6	Co-operative
3.	Friendly	12	9	10	14	19	Unfriendly

Please indicate your feelings about today's session.

4.	Long	6	13	29	13	7	Short
5.	Disorganized	12	22	13	16	5	Organized
6.	Relaxed	8	12	17	16	15	Tense
7.	Dissatisfying	17	20	13	7	11	Satisfying
8.	Warm	6	17	19	18	6	Cold
9.	Dragging	3	17	17	22	7	Lively
10.	Static	___	21	25	18	4	Dynamic
11.	Good	10	16	14	20	8	Bad
12.	Useless	13	20	9	13	13	Useful
13.	Varied	11	8	18	22	8	Repetitive
14.	Productive	9	16	17	16	10	Counterproductive
15.	Aimless	10	20	13	23	2	Directed

16. How much did you meet your own personal goals during this session?

Not at all 4 17 26 15 6 Completely

17. Was it clear to you what the objectives of this session were.

Not at all 9 15 12 21 11 Very clear

18. How much were the objectives of this session achieved in general?

Not at all 2 20 25 15 5 Completely

19. How easy was conversation under these conditions?

Very difficult 10 18 17 14 8 Very easy

Your name _____

We are asking for your name in order to group this questionnaire with others which you may answer during the satellite sessions. Although the results of your questionnaire will be used, your name will remain confidential.

Thank you for your co-operation.

COMMUNICATIONS TECHNOLOGY SATELLITE

Educational Experiences Evaluation

Instrument #4

(To be completed by all persons involved in the planning, implementation, operation, or evaluation of the satellite project.)

1. Name: _____

2. Institution: _____

3. Position/Title: _____

4. Function/Responsibilities in the Satellite Project.

_____

_____

5. Age: 20-Under (1); 21-25 (1); 26-30 (10); 31-35 (19);
36-40 (10); 41-45 (9); 46-50 (7); 51-55 (2);
56-60 (2); 61-65 (3); 66-Over ( ).

6. Sex: Female (20) Male (44)

7. Educational Background (specify in terms of highest level completed)

Elementary ( ); Secondary (8); College (12); University - Bachelors (14); Masters (16); Ph.D. (10).M.D. (4)

8. Major professional activities

Research (5); Teaching (13); Administration (18); Technical (10); Student (3).
Other (specify)

_____

9. What is (are) your major area(s) of specialization?

_____

10. What are your reasons for participating in the CTS project? (Check all those in the list which are applicable.)

Required to participate by supervisor	(8)
Encouraged to participate by supervisor	(8)
Encouraged by colleagues	(8)
Personal and/or professional interest	(27)
Professional development	(5)
Possibility of personal advancement	(1)
Substituted for a colleague	(7)
Other (specify) _____	( )

11. When did you start working actively on the project?

Month _____ Year _____

12. Had you ever used audio-visual equipment before becoming involved in the CTS project?

Yes, often 54 ___ ___ ___ 9 No, never

13. Had you ever worked with telecommunications equipment before becoming involved in the CTS project?

Yes, often 32 ___ ___ ___ 31 No, never

14. In your opinion which of the following factors is the most important criterion for measuring the success of this project?

Technical feasibility	(7)
Satisfaction of the student	(13)
Satisfaction of the experimenters	(1)
The relevance of the project to the institution's objectives and/or mandate	(22)
The possibility of continuing the project	(2)
An innovation in teaching/learning	(16)
Other (specify)	(2)

15. Do you think you received enough training for your participation in the CTS project?

Yes 42 No 17

16. Which of the following persons or groups provided assistance in the planning and implementation of this CTS project?

Your institution's audio visual department

Yes 36 No 9

Your departmental colleagues.

Yes 41 No 5

Your departmental chairman, dean, vice-president.

Yes 14 No 17

Your colleagues in other departments.

Yes 23 No 8

The CTS evaluation team.

Yes 16 No 18

A university committee

Yes 7 No 24

16. Cont'd.

Other(s) (specify)

_____

_____

17. How many of your departmental colleagues are associated with this project?

Don't know (4); 1-5 (34); 6-10 (2); 11-15 (1);
16-20 (12); More than 20 (3).

18. What proportion of your working time is dedicated to the CTS project?

0-25% (31); 26-50% (8); 51-75% (8); 76-100% (7).

19. If your participation in the CTS project is not part of your regular duties, have you been relieved of your other duties for the duration of this project?

Yes 2 Sometimes 6 Never 49

20. If your answer to 19 is never, how much do you estimate that your involvement in CTS has increased your work load?

100% ( ); 75% (3); 50% (7); 25% (23).

21. In your opinion is this project mostly the result of a team effort or individual efforts?

Mostly a team 37 10 3 5 5 Mostly individuals

22. Do you think this project meets or addresses a real need?

Yes 56 No 3

23, Do you think this project will be able to continue after the end of the satellite experiments by using other resources?

Yes 27 No 15

24. Rate your degree of satisfaction with your part in this CTS project?

Very satisfied 19 22 12 6 2 Quite dissatisfied

Comments on your satisfaction/dissatisfaction

_____

_____

_____

_____

25. Do you have any comments which you would like to make about your involvement to date in this CTS project?

_____

_____

_____

_____

_____

26. Please make any recommendations that you think could improve this project.

_____

_____

_____

_____

_____

COMMUNICATIONS TECHNOLOGY SATELLITE

Educational Experiences Evaluation

Instrument #5

(To be completed by participants)

Introduction

The project which you are participating in is one of a series of experiments examining uses of the Communications Technology Satellite for Education. It would greatly help us identify some important educational aspects of satellite communications if you would complete this questionnaire.

Instructions:

Complete each of the following questions by selecting the most appropriate answer or filling in the information requested. Please indicate your feelings about this session by placing an X on each scale. Check all scales in order and do not spend too much time on any one answer.

1. Name _____

2. Age: Under 20 (6); 21-25 (3); 26-30 (14); 31-35 (9); 36-40 (7);
   41-45 (6); 46-50 (4); 51-55 ( ); 56-60 (1); 61-65 ( );
   66-Over ( ).

3. Sex: Female (26) Male (24)

4. Educational background (specify in terms of highest level completed).

   Elementary (3); Secondary (7); College (14); University - Bachelors (14);
   Masters (10; PhD. (1). M.D. (1)

5. Where is your home?

   In a city or town (45); In the country, but not on a farm (3);
   In a village (1); In the country on a farm (1).

6. Date of this satellite session.

   Day _____ Month _____

7. Were there enough TV monitors in the room for the size of group watching this session?

   Yes 35 No 15

8. Were there enough audio systems for the size of the group watching this session?

   Yes 46 No 4

9. Were you always able to clearly hear everything that was said on the system?

   Yes 34 Sometimes 10 No 6

10. How would you rate the physical layout of the room used for this session?

    Excellent 7 16 18 6 1 Poor

11. Were the TV Monitors satisfactorily arranged so that the video portion of the program could be seen by everyone?

    Excellent 6 21 11 4 8 Poor

12. How good was the general quality of the TV picture for this session?

Excellent Picture quality	32	11	5	2	___	Poor picture quality

13. Rate the overall adequacy of the TV picture for achieving the teaching-learning objectives of this session.

Adequate	17	18	10	2	___	Inadequate

14. How would you rate the volume of the sound?

Too Loud	___	7	32	9	1	Too Low

15. Rate the overall adequacy of the sound system for achieving the teaching-learning objectives of this session?

Adequate	20	9	15	5	1	Inadequate

16. Taking into account the teaching-learning objectives of this session, rate the overall adequacy of this communications system for achieving them.

Adequate	21	14	8	4	___	Inadequate

17. Would you like to regularly use this type of communications system for taking similar courses?

Yes 39 No 6

18. Which of the following situations most resembles your impression of this session?

Watching a TV Program	(4)
Attending a Lecture	(1)
Talking on the telephone	( )
Taking part in a seminar	(11)
Listening to an 'open-line' radio show	(5)
Doing a 'live' TV broadcast from a studio	(19)
Having a conversation with friends	(1)
Watching an experiment in communications	(7)

19. It is always easy to tell who is talking on the system.

Strongly Disagree	2	9	8	19	12	Strongly Agree

20. This session followed a closely predetermined plan.

Strongly Disagree	___	8	14	14	12	Strongly Agree

21. In spite of geographical distance the different groups seemed close to each other during this session.

Strongly Disagree	___	10	11	15	14	Strongly Agree

22. This session was too long.

Strongly Disagree	14	13	10	8	2	Strongly Agree

23. The 'content' of this session was very interesting.

Strongly Disagree	1	4	12	17	16	Strongly Agree

24. Most two-way communication which occurred on the system during this session appeared to be carefully planned.

Strongly Disagree	10	13	8	12	6	Strongly Agree

25. What is your overall opinion of the general level and quality of communication in this session?

Highly Acceptable					Unacceptable
18	23	6	2	____	

26. Do you have any comments or recommendations for improving this type of program?

_____

_____

_____

_____

_____

_____

THANK YOU FOR YOUR COOPERATION.

APPENDIX B

COMMENTS

COMMENTS

INSTRUMENT #1

PART A

More participation by moderator to limit speakers dialogue rather than letting them ramble on and on.

Consider the creation of two smaller groups of 7 or 8. Each group would have its' own monitor and two microphones. This structure should facilitate the involvement of more reticent individuals. Pre-establish time limits for your speaker's formal presentation and encourage them to avoid rambling responses.

When phone calls came in one lost continuity of program through phone interference. Time allotted does not allow sufficient questions and answers.

More microphones. Technical advisor always on hand in each community to cope with technical difficulties.

To let our cable system viewers at home see the operation in the studio via television on the cable system, so they would get a more complete idea of how to operate audio talkback to other stations. Give a little more time to make adjustments to audio and visual aspects in system from receiving first visual transmission until on air time.

Panel too large. Two panel members would suffice. Questions period thankfully generous. Video tapes of just the right duration. Good progress.

A better cueing system for people who want to talk on the system.

The man came across equally well on the taped and studio portion. Didn't know how to finish a close. The woman came across much better during the studio interface. During the taped portion the monotone voice and lack of facial and/or hand impression proved irritating to the point of my mentally tuning out much of what was said.

Although it may be unfair to compare with commercial television, the camera work and the voice qualities of the presentors occasionally interferred with the message.

If possible, dry runs before show to ensure all locations receiving and transmitting.

We would hear the noise from the slide projection used in the VTR portion of the program. Needs a better "phone in system" for cable viewers.

Please flash speakers name on more frequently, some speakers are never named other than the initial introduction, as a member of the audience I like to address someone by name. Very good - no suggestions at this time.

Local animators should have a handset socket or similar equipment to connect both circuits of an incoming telephone call directly into the program feed during interactive period without having to use microphone and button. There are times when the video is not needed and the system could be broken down into 800-1200 audio circuits to allow more individual interaction, or to allow "yes-no" feedback into a computer for percentile readout to the lecturer.

I would like to see video reception from other participating localities perhaps at times using split screen composition.

The session was too long in the initial stages.

Easier access to microphones.

Other centers questions could not always be heard adequately. Sound quality could be improved.

An addition of microphones would encourage more active participation. I find it terribly unique which will prove to be a great improvement to educational facilities. The sound volume was at times too low though.

One tends to forget that the technical aspects exist.

Keep salesmen for equipment off the show.

PART B

Studio audience in number would not be necessary another time. It is difficult to find people to participate. Telephone is good. Less programme and more audience participation.

Program should be longer.

Some of sort of training for studio staff and participants so that interruptions such as telephone calls, mike problems, etc. are handled more smoothly.

Too much time allotted to video and primary station and too little time for questions by phone or studio audience.

By the time the phone calls reach the studio and put on air, quite often the topic has changed. A faster way of handling the calls would make an improvement in the interaction of the outside viewers.

I feel if the purpose of this program is interaction, more time should be given to the viewing audience. I found the speakers to be very good and I agreed with most of what they said but I feel they expanded too much and got carried away.

The two speakers seemed to elaborate on answers too much wasting air time and cutting off further questions. Here in Kelowna there were at least twice as many questions as were actually asked on the air. If possible would be nice to see the person from other centers asking questions. Would bring the centers closer together.

Lack of human feeling in the program. Base the topic of interest on ideal grounds with central personalities free of prejudice and rigid preconceptions.

Talkative panel at the studio discouraged group participation at other sites. A discussion session should begin half hour before actual broadcast, in order for audience to better develop its' ideas and questions. A floor director and the panel moderator must attempt to prevent guest panelists from squandering valuable air time with excessive discussion of questions.

More time for site to site discussion.

I feel that there is too much influence by the Vancouver panel members. It is difficult for external panel members to get involved. Probably fewer Vancouver members would help with support by more external members. Under the present system it becomes too "Coastisized", more interior involvement is needed and additional time for preparation would be desireable.

Reduce the size of the panel!

This has been one of the better programs from BCIT on this subject. (Forestry - Harvesting). The panel answered what they were asked and did not ramble on. A fair amount of interaction provide for interesting responses.

One thing that was annoying was when two people tried to speak at the same time. Perhaps this was a breakdown in communications or a lack of organization.

It would be nice to have the people at the different sites who are making comments to be on the air also (visually) so that you can see who is speaking.

A little more time might loosen up the participants and allow for better discussion.

More distinct answers from panelists. More interaction time. Would have helped to have and stated instructional objective.

Did not feel inhibited by this type of session, particularly liked the "call back" number given by SFU so you could ask questions after the time was used up. Panels seemed very human and very approachable.

It was too short a time to share opinions, since there were four stations. So it is better to have two or three stations for the program. But this is dependent on the programming.

Difficulty cutting in to ask questions.

It would be more interesting if the group met earlier than the broadcast, introduced themselves, and perhaps even had a short discussion on the subject to be aired.

Must ensure that panel on the other end can cover all bases. I found that "Forestry Careers" panel was too slanted toward coast forestry. A comment to take effect produced indignation within the panel.

Provide a broader range of "experts" on the panle.

More interaction - better pacing.

Spend more time and thoughtfulness on consideration of motives and principles of justice and less on attempting to reach a pre-determined conclusion through massive accumulation of facts and supportive argument.

In many cases opinions or arguments could not be given as information was being given.

I find this an extremely acceptable and highly approved method of communication for teaching purposes in education media. Hopefully it shall continue.

INSTRUMENT #3

More time is needed for the questioning time.

The Satellite Education programs are a strong contribution in my personal pursuit of knowledge and even though I have generally responded to questionnaires on the program I have enjoyed, it is not to detract from the overall benefit derived from the programs. It has been the result only of chance.

Panel was too biased. Panel dominated too much.

INSTRUMENT #4

Greater emphasis has been placed on the technical accomplishments than on educational values. Right now CTS is an expensive toy - a tool whose place in the educational system has yet to be established.

Now that the experimental period is (for me, at least) over, it is imperative that someone or some group attempt to get guidelines for the kinds of needs that can best be satisfied by CTS. So far CTS has been a solution looking for a problem, which might be okay for an experiment but in my opinion sets a dangerous pattern which should not be allowed to continue. Please can we have some medium and long range planning.

Once the project was actually delivering programs all went relatively smoothly. This indicated I think that the event and planning in which I had a role was well, if hastily done. This was quite satisfying.

Thank God it's over!

In the long term if satellites are to be used to deliver interactive television then it is essential that only programs suited to this medium are delivered. These would appear to be specialized, other tehcnical, programs aimed a specific audiences. e.g. the physician upgrading and the librarians data bank access programs. Interaction must take place throughout not just at the end of a standard one-way program. Conference calls after a simultaneous cable cast can do that.

More lead time would have greatly improved the quality both technically and academically of the program series on forestry. Six weeks is not enough time to produce one program, let alone an eight part series.

As a public librarian talking about old books, their heritage value etc. I received letters from people watching the programme on cablevision with title lists to check.

Thoroughly enjoyed myself. Good potential for public libraries as a communication device.

I do hope public librarians again have the opportunity to participate in future programmes. Public libraries have an educational role to play and in their programming can reach the person in the home better than in the educational institutions.

I would have liked to see a short (2-3 min.) video tape of how I looked and sounded on screen. I had no idea whether the rate of speed, expressions etc. were effective.

Although quite satisfied with technical performance program content of some consortium members was either very poor or aimed at wrong market (persons). Needs study on this aspect required.

1. Needs study to determine content and identify markets of different types.
2. Encourage consortium members to improve their programming.
3. Animators should be trained in systematic techniques to solicit responses. from other sites so that the sites do not all talk at the same time.
4. Provide audiences with information about how much time is left close to end of program.
5. Utilize information from STEP evaluation study and a Needs Study to plan future programs/area.
6. Explore different areas (ministries) re continued funding/requirements/ services etc.

We need a longer lead time and longer experiment time in order to do real identification.

Better animation and much clearer identification of needs (matching audience with subject).

My main dissatisfaction stems from the fact that few viewers understood it was an experiment.

Many last minute changes in organization - but that kept it interesting.

The project could have been shorter. Most of the questions re technical feasibility and relevance to future mandate (possible) for PEMC were probably clear after the first half of the project. However ....

The project should have been of greater duration. A longer time period would have allowed complete courses to have been conducted. We should have utilized the Saturday time available to use for broadcast of PEMC productions, arts and culture, and other interesting documentary materials.

Interesting and informative.

Better equipment and coordination of audiences to reach more people.

Satisfied with production on PEMC's part. Feel there is a need for better planning and packaging of the various institutions insert material.

Felt that with better lead time I could have contributed to over-all quality of insert material.

Time and money.

Satisfied to see how well PEMC was able to cope with such a hurried complex project.

Sorry I wasn't able to contribute more.

More lead time. More understanding by outside people of the technical and administrative difficulties involved in organizing such a project.

I was satisfied with what I was asked to do, but whether the use of graphics could have been more creative or meaningful in conveying information or viewer satisfaction I do not know since the subject was never broached.

My involvment was only in supplying needed titles or graphics upon demand. As a creative element, rather than a service element there is conceivably much more that a graphic designer could contribute to a project of this nature. Having not been that closely involved in the production, I am not able to make value judgements.

PEMC should have more control over the technical specifications of programs aired.

An overall look at the job I had to perform for this project had a very slow response. Due to the nature of the questionnaires the participants co-operation was limited as the questionnaires tend to be too long. Towards the end of the project more co-operation was noted and this helped the evaluation become more meaningful.

1. More co-operation with the animators and the studio.
2. Longer time to interact. More opinion and less questions from the audience.
3. BCIT site should have been set up for interaction as well.
4. Better cueing system for interaction as too much time was lost waiting for the site to respond to questions.
5. Better understanding of the program content. Preparation before the program so that the key audience would be in tune with what the program content was and could prepare their questions before hand if they were not already answered in the discussion.
6. Smaller or more variety of expertise on the panels with only the top dogs on so that the questions could be readily answered adequately.
7. Do a study before the next project is launched to check the needs of the community.
8. Check education areas of NEED for Distance Education.

Our program could have been very useful if studio rehearsal time had been allocated.

With the help of the technical people at SFU and PEMC the program went extremely well. I feel that the material presented stimulated some thoughts on the subject area and successfully dealt with the associated problems.

My involvement was short term. Once the program was completed I did nothing more.

The most important aspect of the program is to satisfy a need in the community. If we simply televise programs without looking at each community it is a waste or time. The animators should have time to assess the needs of the community with respect to the specific topic suggested by the institution.

The technology was more useful than I had expected.

Much more lead time and funding for - local animation, production, pre-work, materials. More careful selection of content for this format.

It was of great interest for us to take part.

Questions and answers should be kept precise and of interest to tall.

Satisfied in bringing education from the University to the community. Very worthwhile.

You should attempt to sort out the video delay problems and allow people to produce a full video tape in advance. Visual material has a definite impact but it must be organized well. I suggest that keeping people who are speaking off the screen and providing directly applicable visual aids, is the best format. It's amazing how the general populace can learn to appreciate graphs etc. even though their first exposure may bemuse them. Now that you have captured the audience, demand something of their intelligence.

Panel Moderator and floor manager openly disagree during program re: introduction and time left at end of the program.

Satellite pins seemed a waste of money.

I need more experience before I am able to teach effectively by this method, but I can see terrific potential for this type of course delivery in outlying areas of the province.

It has been an exciting and valuable experience.

Video projection seems an excellent way of delivering courses to small communities in B.C. Should be expanded. An overall plan, including needs, interest assessment in the communities to be served, the rationale for using satellite video rather than local college resources is badly needed. Professors need time and some training to enable them to teach effectively on T.V.

I felt the filming in Vancouver was poor and the taping at UVic was better. The animators played too dominant a role; the interested people in the receiving community weren't involved. If they weren't interested why have the program. If they were then animators should have involved them.

My involvment was minimal but I feel our program was too skilled and very much geared to para professional in Family Law, social workers, court personnel, etc. who didn't take part.

1. Fewer people involved in end product. I'm a great believer in a small and efficient team. I feel, especially in Vancouver, that resources were being wasted in excess studio staff.

2. The animators need to be more involved in community needs - setting programs that are requested and to which local people make commitment. Should not try to appeal to a general audience. That's better done using cable T.V.
3. Media professionals like the excellent fellow from UVic should direct more.

Technical work was good, studio cooperation was good. Preparation good.

Less type and more concern with content. Too much concern with media personalities i.e. the absurdity of the LaPierre-Watson exchange. Too little with intellectual content.

Why butcher the language by calling this document an instrument? Our project should have been tighter. Example: more clearly identified audience, good enunciation etc. I have impression entire project was created to fill satellite time rather than to fill some other need.

I found the work interesting, but was disconcerted by having the only rehearsal scheduled at the last minute for a time I could not attend. Lack of knowledge about the interest and composition of the audience made planning hard.

Continuity of programming, a planned for audience, time to develop meaningful themes and an adequate dialogue. Avoidance of the television format of instant communication of small, isolated facts (or fragments).

The communications concept was most satisfying in that it was such an improvement over "open line" shows. We received good, spontaneous questions that were relevant to the discussion.

My involvement was a relatively few hours for meetings, taping sessions, and the live portion. I'd be willing to do it again.

More attention could be paid to colour of background panels. Taping at UVic showed brownish panels and all panelists also wore brown tones.

Time period to short (1 hour). Some confusion in roles of chairperson of panel (myself) and the roles of introducers (Carney, Fotheringham), too many cooks.

A learning experience, intrinsic reinforcement in seeing the finished product, team (programming and technical), I assembled turned out to be competent, congenial, and interested in the project and its' implications for education, generally positive and supportive relationships (working) with DEPG and PEMC.

Limited number of colleagues interested in the project - majority of those not interested either uninformed or felt all that project did was re-invent the wheel.

Longer planning time, better summaries of work of others with such projects, personal on site evaluations (simply didn't have time to travel to one or more sites), better liaison with local animators (probably a function of lack of time) small group workshops on effective use of systems, including program design and marketing.

Preparation of audiences in locations poor/our particular project could be carried out just as well by telephone. Elaborate technology not necessary. There is, however, a real need for this type of service in the community colleges.

Interesting experience, but fraught with problems and frustrations.

More long range planning necessary. Communications between overall organizers of project and distant locations could have been much better. We were asked to participate at a very late date which made it very difficult to get a program together. It also seemed that our program was misrepresented to the audiences, they were expecting something quite different from what we presented. Presentation of lectures via satellite is feasible, but reference service cannot be given via satellite. The satellite cannot replace library resources in distant locations. The animators did not prepare audience well due to poor communication. Most training we had was due only to our own efforts; not due to training provided for us by people at the Hermes location. Susan Leslie was very helpful in coming to U.B.C. to help us with our project.

Preparation in the outlying areas was very poor. Our particular project was a waste of resources. The one positive aspect was personal interest in the project and the learning experiences of how reference cannot be done via satellite.

The librarians from the colleges who came to Vancouver and met with us understood our program. Those who had to depend on the animators were unprepared and misinformed about our program.

1. The satellite appears to have possibilites for lecturing and teaching but not for answering individual reference questions. There is no substitute for basic core collections at the colleges and for strong reference collections to provide students with the tools to access materials available for inter-library loan from the lower mainland libraries.
2. Better preparation and communication with the outlying regions is needed.
3. More time for rehearsal in the studio would have been useful. Fortunately we had prepared and rehearsed our program before our arrival at the studio although we had been told we would have time to rehearse at the studio.

I was very glad to have immediate "feed back" from the comments we were making. This two-way of communication is ideal - you know what you have successfully taught and what you need to reinforce.

I was surprised at the level of ability of many of the people who responded. They were very bright people.

I thought that we could have had a better presentation if we had had a little graphics work done. We needed a few charts, the odd picture, etc. to jazz up our presentation. Only very patient people could have followed the fuzzy out of focus charts we used - graphics could have made things much easier to understand.

High degree of cooperation with Health and PEMC groups. New adventures in production. Reach out to the rest of province. The set at PEMC was beautiful but inflexible and possibly somewhat intimidating to non urbanites.

More and better lead time required. A greater means of contact with local animators. Less rigid time slots for certain programs.

1. Let audience know what degree of participation (interaction they can anticipate - reduce expectations) where necessary.
2. Provide a room adjacent to receiving area for immediate pre and post TV planning and follow up at local level.
3. Have more local animators so the job distributed.
4. Insist on no more than 10 minutes preferably 2-5 minutes, for any production segment before a break. Send longer stuff ahead of program via videotape.
5. Get audience size and I.D. information before program starts.
6. Let content determine length of program.
7. Provide a more versatile set.
8. Save satellite transmission of TV for those things it can do which other things can't do. Some possible criteria; of immediate benefit to more than one local group; where interchange among groups helpful; where citizens can get vital information regardless of their number, because of inavailability of teacher, doctor, consultants. Obtain research data on this interactive element from proven performers e.g. country check up; hot liners etc.
9. Encourage their local production to the city on topics they know most about. (Audio first, then as technology permits video.)
10. Set educational objectives and evaluative instruments up at time of planning programs. This means 3-4 months lead time.

Finally thank you Pat, Gene, Arvid, Bernie, Wayne, Cathy. In spite of suggestions above - a herculean task was performed under the most trying of circumstances.

Not enough lead time to determine the needs of the learner. Method should be developed to allow more interaction, if necessary, I doubt that interaction is such a necessary part of education.

Studio set should be flexible. Most program content was diluted as it was aimed at general public. Programs should specific to learner groups. From this experiment it was obvious that in many cases the use of live TV was not a necessary part of education, many subjects could be handled by video cassette sent to the local areas followed by a telephone conference. It is my feeling that a in-depth study of the use of television in long distance learning has to be made and new methods of the use of this media established.

The build up to the presentation was quite professional but the actual presentation (the most important) ran into serious problems on the air - due to a conflict between stage managers.

Better teamwork and communication at the management studio level.

Much more production money necessary to up-grade the level of skills in all facets, especially in the content of the programs.

I could be of greater use to the project by being involved at the program concept stage as well as the production phase.

More independent media production people to produce and package the material on behalf of various institutions. Clearer objectives for the project which will enhance the weight of the individual programs. A highly visible execproducer type to co-ordinate the aesthetic and educational content of all programs.

A bigger commitment to the rural viewer by delivering more than a one shot, e.g. some general interest immersity course on perhaps B.C. History that via a correspondence program will earn university credit or perhaps the delivery to the 'system' of special interest material like a course on 'occupational health' delivered to industrial work sites, logging groups, and remote settlements. Also, program from the boonies to the city and seat of government.

Its results can now be applied to post secondary education for all in B.C. who are isolated from colleges and universities. It offers the opportunity of broadcasting video tapes of the internationally know scholars brought to UBC by the Cecil Green visiting professors and others.

This was definitely a learning experience for me, but I was gratified to find the interaction with the outlying communities was the 'highlight' of the program; and their response to our panel discussion was most satisfying.

An enjoyable experience! Thank you.

Inadequate communication to local areas re its availability. Terrible colour recording. Unable to see director (should wear white).

Personally would like to have done a better job as panel moderator. Received great support and help from studio team at PEMC. Error in control room threw me a little in early stages of November 22 program.

Opened up not only world of satellite communications but a subsequent telephone conference with Dawson Creek audience because of transmitter problems the night we produced our program.

Interesting experiment. Delay interferes somewhat with free back and forth discussion. Time limitations would be interesting to have visual both ways. We had on one occasion a nurse in one of the communities asking some technical questions and I am sure the discussion was relevant and helpful as well as the lay participation for which it was devised.

The use of the key resource person in the community also very helpful and able to coordinate questions from listeners effectively.

I think this project points the way to a very effective means of disseminating specialized instruction and information (which tends to be concentrated in the large urban areas) but the ways it failed or fell short are related mostly to the project being too dependent on the "Broadcast Television" model.

I sound all the PEMC staff very friendly, co-operative and competent (with one incident excepted - a VTR insert that should have been cued up and wasn't).

Most of our troubles were with factors of time and place. As in broadcast television, our on-air time was divided into discrete one hour segments; no attempt was made to discover an appropriate duration for an interactive health-problem discussion. Considering the amount of physical effort that participants (on both ends of the system) had to put out to attend, they were very likely to feel short-changed and frustrated; the technology made the experts appear accessible, but the 58 minute thinking effectively denied this. The not enough time feeling (which increased with complaints from frustrated participants) coloured our approach to everything. This was often counter-productive as when it was felt that we shouldn't take time to warm up or establish

rapport between and among sites and participants.

As in broadcast television, the design of the set seemed to say "We're a bunch of slick TV professionals, this is a big deal, and we're going to zap it to you."

The flying saucer motif was very cute and quite intimidating, certainly to some panelists, and probably to many viewers. It is quite daunting enough for someone to appear on television for the first time, without deliberately compounding their discomfort and anxiety by ungrounding them - floating them in a dark sea on an unnecessarily high riser. I also question whether it was wise to confine cameras from head to toe.

In other words, I would recommend that ways be found to loosen up the mood or mind set, to find and eliminate spatial and temporal constraints; access, participation, dialogue across distances could all be eased. Let the medium serve the people rather than the people serving the medium.

Satisfied on a technical basis.

Programs were generally lacking in prepration. Preparation is the essence of television programming. Make sure the guests, the crew, the hosts understand why and what they are supposed to do.

Make the best use of live demonstaration and interaction, as well as guest V.I.P.'s. I do not see the point of using valuable satellite time for playing tapes unless they are brief and could not be done live.

How about an interaction program where the V.I.P.s are at regional studios (unseen) and the audience questions him or them from the Vancouver base.

Don't compete for the general public by programming in TV prime time.

The people putting the programs together must be flexible. They must be willing t change the program and its format to fit their audience. They must let the other centres speak and answer the questions directly, not beat around the bush. Any panel must be kept to a small size and the idle chit chat cut out. Television is a visual medium and to keep the centres interested during a lecture or speech, slides and other important data must be shown, not just talked about. The studio audiences may have been large had the sessions been able to be in the college, the real objective of the CTS project.

Owing to ignorance and lack of experience I wasted appreciable time in following what transpired to be dead ends.

Increased publicity to encourage public participation. Tapes made available for showing in other areas. A more practical procedure for receiving and stacking up incoming calls and questions. Better equipment for receiving and transmitting telephone calls at the regional studio.

Sufficient funds available to produce programs. Better publicity - increased public awareness. Improvement in technical ability to receive incoming calls stacking capability. More direct communication with satellite groups re program content and format.

Very satisfied from the point of view that my contribution helped to make the project a success. Also I am very satisfied that I have gained new knowledge. Very unsatisfied from the fact that my efforts were not in anyway acknowledged by my superiors.

It would be nice to have the college recognize the investment of time and self motivation that I personally committed to the project.

Better communication at the college senior administration level and the Ministry of Education. Better communication at the project level - too often there were too many cooks and the left hand - right hand syndrome emerged. More preparation time - technically and program wise. Time on the satellite system just to experiment or even play with various modes or interactive TV. I felt that we tended to track into only one format of interactive TV out of perhaps, many possible formats.

INSTRUMENT #5

The set is over powering, too much time spent contacting outside groups.

Add two-way video.

More interaction between panel members.

Panelist should speak in laymans terms as the majority of the audiences are local peoples. More interaction time.

Stating objectives of the program at the beginning.

Brief description of the medium being used or has this been done? What satellite, where is it, is it Canadian, how old, how does it work? What is the heart foundation? Who are the people, are they family oriented. single? Some personal background. Make them more acceptable to the audience. therwise an effective program of real interest.

Suit the programs for local situations.

Very impressed with PEMC. Important to have good videotaping, otherwise could be dreadful. Two-way communication makes session much more interesting. Lectures are boring on screen. Hard to focus on printed material on a screen. Perhaps these materials should be avoided.

More use of the two-way communication facilities - allow receiving stations more time or a video signal showing the receiving stations. Try to show less of the typical television talk show format and a little more the informal two-way audio and video communication.

More!!

It would help to have some kind of handout to keep all aspects of the program straight.

Closing discussion of problems related to technological development most interesting section.

There is too much lag between a person starting to speak and the camera including them in the picture. Many questions in this evaluation form address themselves to the teaching/learning objectives, but at no time during the program were they stated. How is it possible to evaluate the unknown or was it supposed to have been so obvious?

Too many people talking. I found the audience too noisy, difficult to hear the program because the floor director was talking to the panel while the video tape portion was on.

Have interactive video as well as sound. That would rise the level of interest Perhaps at this experimental stage the content is not too critical but this was a fairly dull cablevision type TV program at very limited interest. Some really imaginative programming, utilizing the remote locations much more would be a big improvement.

More conversational communication from participants - who they are, where they live etc. With only visuals from the studio a greater sense of the oth people should be achieved. Communication is more than just asking que ons. The use of the satellite technology in education can only be as effici t and effective as the quality of the education process. In this particular program on arthritis I found it hard to imagine the video insert material being of much interest even to arthritis sufferers - the questions did not often seem to be connected with the video material. Some soliciting of opinions from the outlying audience would have been interesting. The people issues re diet, acupuncture, verbalish were not adequately answered by the 'establishment' medical panel. Why the time limitations which seemed arbitrary?

As a tax paying citizen who will not profit by this type of communication, I would say that the system for said communication is very good. If I was to live in the community where these programs are transmitted I would surely watch.

APPENDIX C

RECOMMENDATIONS

RECOMMENDATIONS

PRODUCTION

1. The number of panelists should be kept to a minimum and in line with the type of program.
2. Possibility of two-way video should be explored.
3. More time should be allowed for interaction and question periods. Time limits for panelists responses should be set.
4. Insert material from institutions should be better planned.
5. A better cueing system for people who wish to talk.
6. Panelists name should be flashed on screen more frequently for identification.
7. Programmes may be lengthened.
8. Sound quality in certain instances required improvement, e.g. volume and clarity.
9. More lead time for program preparation and planning should be given.
10. Better teamwork and communication at the management studio level may be required.
11. Programs should be better paced.
12. Pre-programming acquaintance for panelists.
13. Wrap up discussion would also be advisable for satisfaction of the participant.
14. Physical layout of some on-site locations could be improved.
15. T.V. monitors may need to be placed in better positions.
16. Ways should be explored to assure confidentiality on teleconferencing.

PROGRAM CONTENT

17. Needs study required to determine program content.
18. Content of programs should be geared to local audiences.
19. Outline of program objectives and directions at beginning of sessions is required.
20. Identification of types of graphics required for conveying information to viewers.
21. Question preparation period should be set up to facilitate question period and responses.

22. Panelists should have a broader range of viewpoints or expertise on subject matter.
23. More visual aides, e.g. slides, graphs, etc., should be utilized during lectures.
24. Co-operation from higher administrative levels should be encouraged.
25. Consortium members producing programs should adequately budget for their programs.
26. Program content should be presented in a straight forward, non confusing manner.

COMMUNICATION

27. A pre-air panel interaction session might be considered.
28. Show less of typical T.V. talk show format and more informal two-way audio communication.
29. Questions and answers should be clearly stated and interesting.
30. Technical advisors should be on site to cope with technical problems.
31. Explore possibilities of split screen two-way video.
32. Animators may wish to inform and prepare themselves more adequately regarding the content of programs.
33. Explore ways to have handset sockets or similar equipment to connect both circuits of an incoming telephone call directly into the program feed during interactive period without having to use microphone and button.
34. Protocol considerations as to order of questions/sites etc. should be communicated early in the programs.
35. More interaction between sites should be encouraged.
36. Increased publicity to encourage public participation is required.
37. Animators should explain procedures and equipment use more clearly.

AUDIENCE

38. Audience needs to be identified and programs suited to audience and community.
39. More opinions rather than questions may be solicited.
40. More audience participation might be encouraged.
41. Let audience know what degree of participation/interaction they can anticipate.

42. Obtain audience size and I.D. information before commencing programs.

43. Some warm-up time at on site locations should be allowed for prior to satellite communication. This might help build up spontaneity during interactive segment of the program.

APPENDIX D

OBJECTIVES

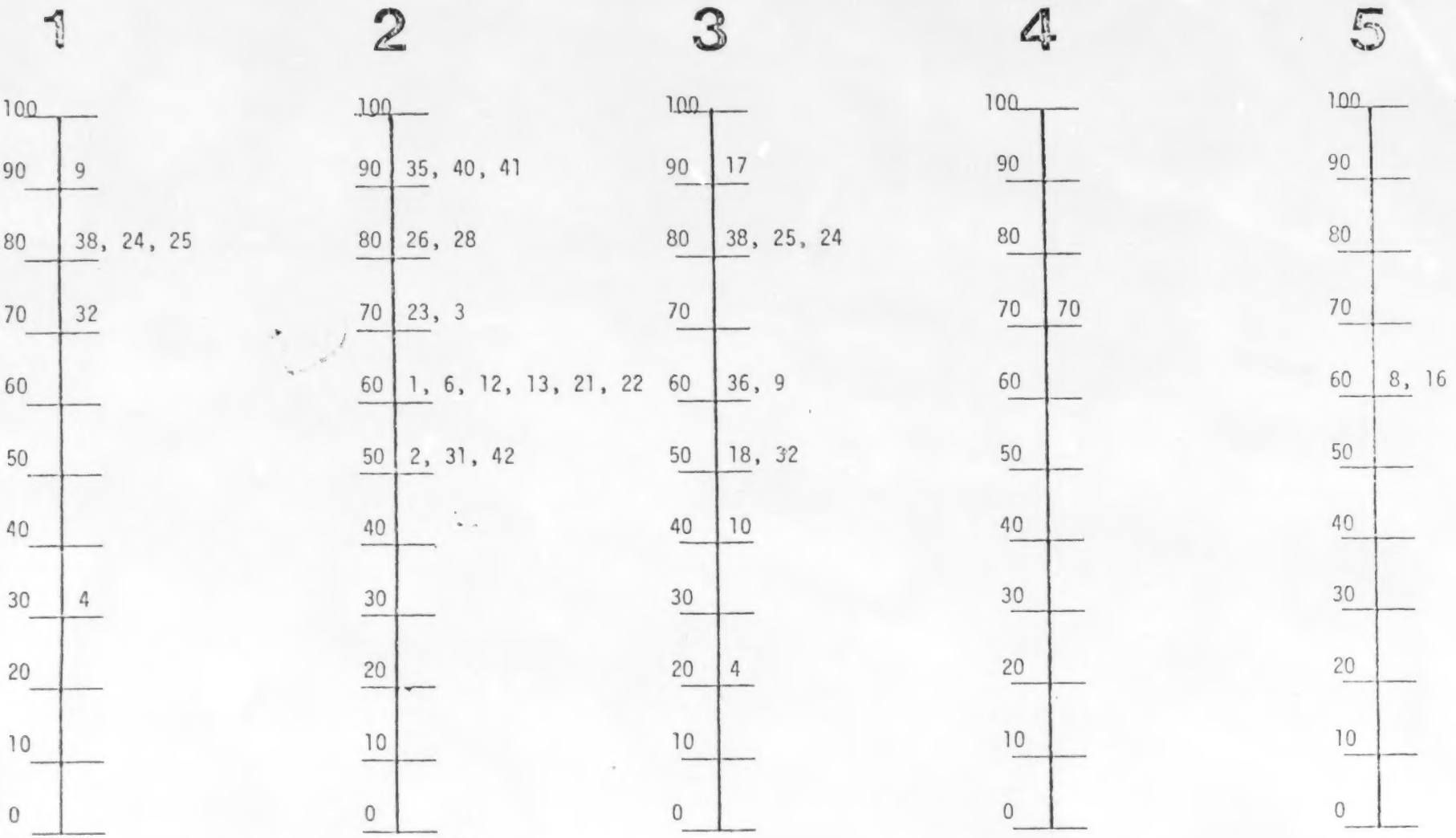
OBJECTIVES

Priority		
.117	1.	To test the "utility" model of a centralized DE agency to co-ordinate consortium activities.
.114	2.	To test the concept and technical feasibility of interactive communications systems, whereby students at a distance can communicate with a centrally located instructor.
.110	3.	To test the feasibility of various educational agencies producing and sharing DE programs for general or specific audiences, in a variety of modes (workshops, lectures, open forums, phone-ins, etc.).
.099	4.	To utilize S.T.E.P. as part of DEPG's planning process, in order to test the concept of using a range of educational institutions in a consortium model as the delivery system for distance education.
.096	5.	To test the feasibility of using satellites as a DE mode, both technically and from an instructional perspective.
.091	6.	To raise the level of awareness about distance education (what it is), DE techniques (how it is done) and the nature of the demand for DE (who benefits) on a province-wide basis.
.088	7.	To increase the community's awareness of the role and potential of the regional community college.
.084	8.	To test the various configurations of DE satellite-based systems, including hardware apsects (cablevision, classrooms, telephone links etc.) and audience aspects (size and spatial distribution of groups, etc.).
.078	9.	To test the feasibility fo satellite transmission and delivery at the specific site chosen for the S.T.E.P. experiment.
.065	10.	To test the potential use of satellites as a cost effective method of transmitting live television signals and educational information, including data, on a province-wide basis, relative to alternative systems (micro-wave systems, land lines, etc.).
.052	11.	With program constraints, to assess whether the S.T.E.P. programming, as produced by the participating educational agencies, met a perceived need in the test communities.

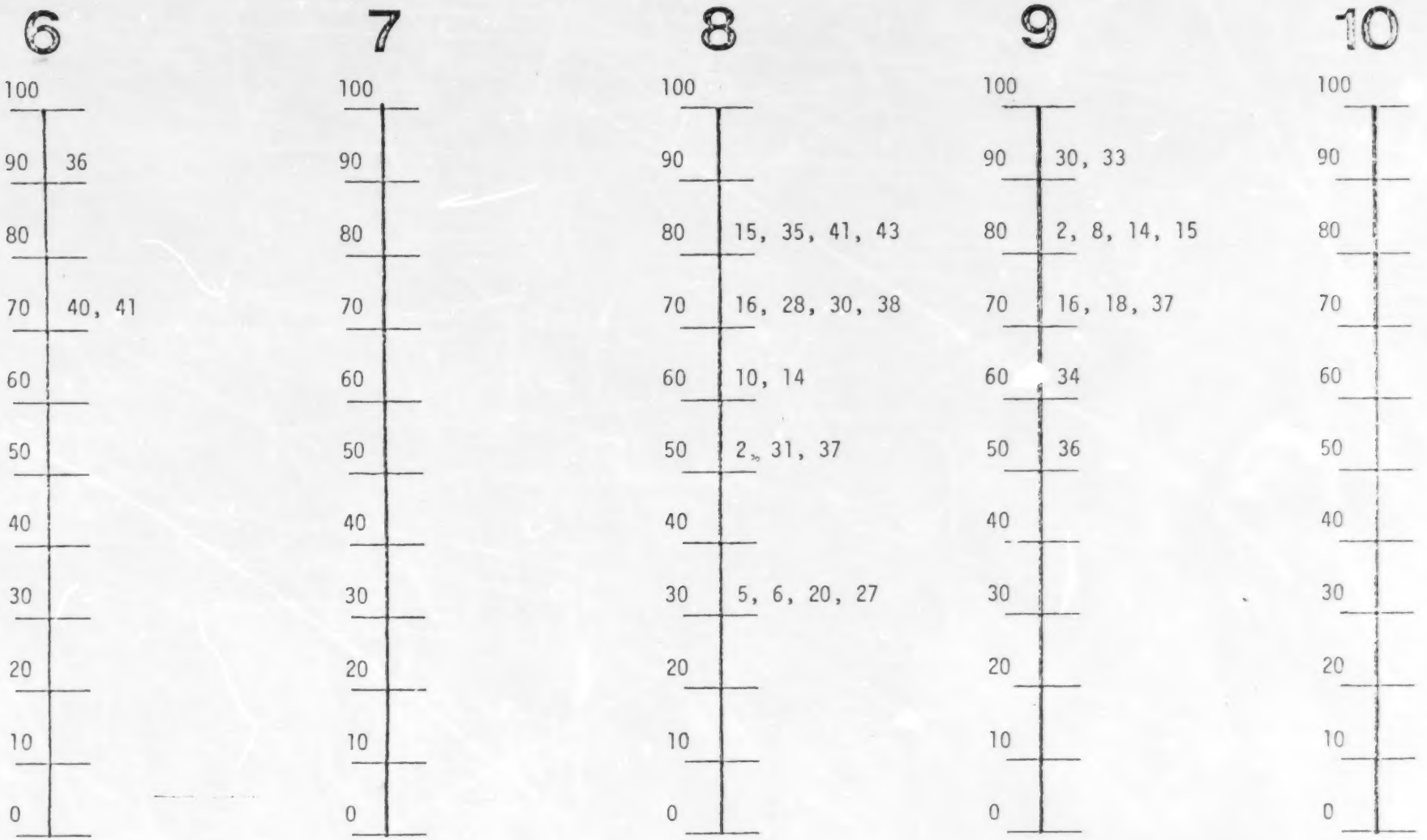
APPENDIX E

RESULTS OF UTILITY ASSESSMENT OF RECOMENDATIONS

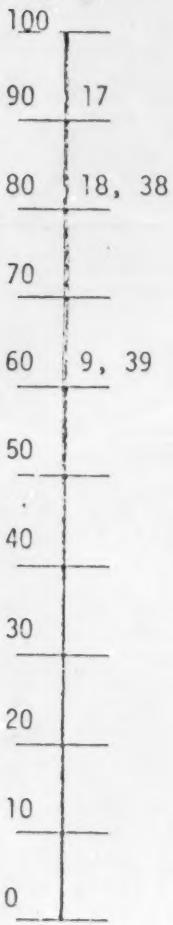
QBJECTIVES AND RECOMMENDATIONS



These are the recommendation numbers on a relative scale attaining the utility factor from a high degree to a low degree pertaining to each of the objectives.


6
100
90
36
80
70
40, 41
60
50
40
30
20
10
0
7
100
90
80
70
60
50
40
30
20
10
0
8
100
90
80
15, 35, 41, 43
70
16, 28, 30, 38
60
10, 14
50
2, 31, 37
40
30
5, 6, 20, 27
20
10
0
9
100
90
30, 33
80
2, 8, 14, 15
70
16, 18, 37
60
34
50
36
40
30
20
10
0
10
100
90
80
70
60
50
40
30
20
10
0

11



72

An arbitrary division was utilized to assess those recommendations that had high utility 1000 - 666, medium utility 665 - 334 and low utility 333 - 0. It is possible to have the same recommendation occupying different utility values because it may have utility on more than one objective.

Recommendation Numbers	Utility
9	1000
35, 40, 41	974
17	940
38, 24, 25	888
36, 28	866
38, 24, 25	835
32, 36	777
3, 23	757
30, 33	666
1, 6, 12, 13, 21, 22	649
15, 35, 41, 43	638
9, 36	626
40, 41	605
2, 8, 14, 15	592
16, 28, 30, 38	558
8, 16	547
2, 31, 42	542
18, 32	522
16, 18, 37	518
10, 14	478
17, 34	444
10	417
2, 31, 37	398
18, 38	395
36	370
9, 39	296
5, 6, 20, 27	239
4	208

REFERENCES

Dawes, R. M. and Corrigan B.
Linear Models in decision making, Psychological Bulletin, 1974, 81:97 - 106.

Edwards, W.
Social Utilities - The Engineering Economist, Summer Symposium Series VI, 1971.

Keeney, R. L.
Utility functions for multi-attributed consequences. Management Science, 1972 a, 18, 276 - 287.

Raiffa, H.
Decision Analysis:Introductory Lectures on Choices Under Certainty Reading, Mass:Addison - Wesley, 1968.